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RAW SEQUENCE LISTING

DATE: 07/30/2001

PATENT APPLICATION: US/09/864,761

TIME: 14:54:50

Input Set : D:\Sequence.txt

Output Set: N:\CRF3\07302001\I864761.raw

ENTERED

1 <110> APPLICANT: Penn, Sharron G.
2 Rank, David R.
3 Hanzel, David K.
4 Chen, Wensheng
6 <120> TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL
FOR
7 GENE EXPRESSION ANALYSIS BY MICROARRAY
9 <130> FILE REFERENCE: Aeomica-X-1
C--> 11 <140> CURRENT APPLICATION NUMBER: US/09/864,761
C--> 11 <141> CURRENT FILING DATE: 2001-05-23
11 <150> PRIOR APPLICATION NUMBER: US 60/180,312
12 <151> PRIOR FILING DATE: 2000-02-04
14 <150> PRIOR APPLICATION NUMBER: US 60/207,456
15 <151> PRIOR FILING DATE: 2000-05-26
17 <150> PRIOR APPLICATION NUMBER: US 09/632,366
18 <151> PRIOR FILING DATE: 2000-08-03
20 <150> PRIOR APPLICATION NUMBER: GB 24263.6
21 <151> PRIOR FILING DATE: 2000-10-04
23 <150> PRIOR APPLICATION NUMBER: US 60/236,359
24 <151> PRIOR FILING DATE: 2000-09-27
26 <150> PRIOR APPLICATION NUMBER: PCT/US01/00666
27 <151> PRIOR FILING DATE: 2001-01-30
29 <150> PRIOR APPLICATION NUMBER: PCT/US01/00667
30 <151> PRIOR FILING DATE: 2001-01-30
32 <150> PRIOR APPLICATION NUMBER: PCT/US01/00664
33 <151> PRIOR FILING DATE: 2001-01-30
35 <150> PRIOR APPLICATION NUMBER: PCT/US01/00669
36 <151> PRIOR FILING DATE: 2001-01-30
38 <150> PRIOR APPLICATION NUMBER: PCT/US01/00665
39 <151> PRIOR FILING DATE: 2001-01-30
41 <150> PRIOR APPLICATION NUMBER: PCT/US01/00668
42 <151> PRIOR FILING DATE: 2001-01-30
44 <150> PRIOR APPLICATION NUMBER: PCT/US01/00663
45 <151> PRIOR FILING DATE: 2001-01-30
47 <150> PRIOR APPLICATION NUMBER: PCT/US01/00662
48 <151> PRIOR FILING DATE: 2001-01-30
50 <150> PRIOR APPLICATION NUMBER: PCT/US01/00661
51 <151> PRIOR FILING DATE: 2001-01-30
53 <150> PRIOR APPLICATION NUMBER: PCT/US01/00670
54 <151> PRIOR FILING DATE: 2001-01-30
56 <150> PRIOR APPLICATION NUMBER: US 60/234,687
57 <151> PRIOR FILING DATE: 2000-09-21
59 <150> PRIOR APPLICATION NUMBER: US 09/608,408
60 <151> PRIOR FILING DATE: 2000-06-30
62 <150> PRIOR APPLICATION NUMBER: US 09/774,203
63 <151> PRIOR FILING DATE: 2001-01-29
65 <160> NUMBER OF SEQ ID NOS: 49117
67 <170> SOFTWARE: Annomax Sequence Listing Engine vers. 1.1

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Input Set : D:\Sequence.txt

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69 <210> SEQ ID NO: 1
70 <211> LENGTH: 466
71 <212> TYPE: DNA
72 <213> ORGANISM: Homo sapiens
74 <220> FEATURE:
75 <223> OTHER INFORMATION: MAP TO AC007372.4
77 <220> FEATURE:
78 <223> OTHER INFORMATION: EXPRESSED IN ADULT LIVER, SIGNAL = 1.3
80 <220> FEATURE:
81 <223> OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 0.95
83 <220> FEATURE:
84 <223> OTHER INFORMATION: EXPRESSED IN HEART, SIGNAL = 1.1
86 <220> FEATURE:
87 <223> OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 1.7
89 <220> FEATURE:
90 <223> OTHER INFORMATION: EXPRESSED IN BT474, SIGNAL = 1.7
92 <220> FEATURE:
93 <223> OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 2.5
95 <220> FEATURE:
96 <223> OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 1.7
98 <220> FEATURE:
99 <223> OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 1.2
101 <220> FEATURE:
102 <223> OTHER INFORMATION: EXPRESSED IN HBL100, SIGNAL = 1.7
104 <220> FEATURE:
105 <223> OTHER INFORMATION: EXPRESSED IN BONE MARROW, SIGNAL = 1.8
107 <400> SEQUENCE: 1
108 tcatatggcc caagtggaag agcagcttgc acagcagcct ggaccttttg cagaaccttc 60
109 tccggtttctg gattccactc aaaaatggca gccttttgaa tctactagata aaggggctgg 120
110 agtagcccac ccaaatgagg aatgtgttgc ctccaaaatc caaatagacc cactaggcgt 180
111 tgtgcctctt tcttggttgt aggagggggc aaatgcagca acttatacctt taccttagaa 240
112 agaatatctc tacaggcccc acaccactgg acccctagaa attttactaa ggtagaaggt 300
113 cctgaattt tagtcggact tatttcccat cctctgacac acaaatgtct caccaataag 360
114 tccagtgtgt ttgctacttc ttgctcactg gatccaatca gcataatgtc atcagtgtaa 420
115 tggaccagtg tgatatcttg cagaagcaaa aagcaatcaa ggttgc 466
117 <210> SEQ ID NO: 2
118 <211> LENGTH: 475
119 <212> TYPE: DNA
120 <213> ORGANISM: Homo sapiens
122 <220> FEATURE:
123 <223> OTHER INFORMATION: MAP TO AC007372.4
125 <220> FEATURE:
126 <223> OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 4.8
128 <220> FEATURE:
129 <223> OTHER INFORMATION: EXPRESSED IN ADULT LIVER, SIGNAL = 1.5
131 <220> FEATURE:
132 <223> OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 1.5
134 <220> FEATURE:
135 <223> OTHER INFORMATION: EXPRESSED IN BT474, SIGNAL = 2.2

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137 <220> FEATURE:
138 <223> OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 1.7
140 <220> FEATURE:
141 <223> OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 2.3
143 <220> FEATURE:
144 <223> OTHER INFORMATION: EXPRESSED IN HEART, SIGNAL = 1.9
146 <220> FEATURE:
147 <223> OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 2.9
149 <220> FEATURE:
150 <223> OTHER INFORMATION: EXPRESSED IN BONE MARROW, SIGNAL = 1.2
152 <220> FEATURE:
153 <223> OTHER INFORMATION: EXPRESSED IN HBL100, SIGNAL = 1.6
155 <400> SEQUENCE: 2
156 ggcatttgag ccactttctc acgtaactta cttatgcctt caggacctgc tcgagctcaa 60
157 tcatgtatat accacttcca ttgatgata caatgctgct gtgcctgaac cactttatgg 120
158 ctagatgggt cagaaagcat ccagttcatg ataggcaatt caggttgcat ggtgacttga 180
159 tgacccatag tcaaacattc agtttccacc aaggcccagg aacaggcaaa gagctgtctc 240
160 tcaaaaggag agtagttatc tgcagaagat ggcagggcca tgctccaaaa tcctacaggc 300
161 ctctgctgtg attcacctat gagggcctgc caaaggctcc aaacagcatc tctatctgcc 360
162 actaacacct caagcatgat tggatctgtt gggtcatatg gcccaagtgg aagagcagct 420
163 tgcacagcag cctggacctt ttgcagaacc ttctccgggt ctggattcca ctcaa .475
165 <210> SEQ ID NO: 3
166 <211> LENGTH: 454
167 <212> TYPE: DNA
168 <213> ORGANISM: Homo sapiens
170 <220> FEATURE:
171 <223> OTHER INFORMATION: MAP TO AC007372.4
173 <220> FEATURE:
174 <223> OTHER INFORMATION: EXPRESSED IN BT474, SIGNAL = 0.75
176 <220> FEATURE:
177 <223> OTHER INFORMATION: EXPRESSED IN HBL100, SIGNAL = 0.8
179 <220> FEATURE:
180 <223> OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 0.77
182 <220> FEATURE:
183 <223> OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 1.4
185 <220> FEATURE:
186 <223> OTHER INFORMATION: EXPRESSED IN ADULT LIVER, SIGNAL = .1
188 <220> FEATURE:
189 <223> OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 1.6
191 <220> FEATURE:
192 <223> OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 1.4
194 <220> FEATURE:
195 <223> OTHER INFORMATION: EXPRESSED IN BONE MARROW, SIGNAL = 0.89
197 <220> FEATURE:
198 <223> OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 1.2
200 <220> FEATURE:
201 <223> OTHER INFORMATION: EXPRESSED IN HEART, SIGNAL = 1.5
203 <400> SEQUENCE: 3
204 gcccaatgcc atttgagtag tgaaagaagt atggagctgt tagagattca tgttcttccg 60

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205 atagataaac tcctgtcttt cagtaagcca atagggtctt gttgaaatat ggattcagtt 120
206 ctttaatttcc ttgcctttat ataacttttt aaaacaataa gctctcttat aatcatacct 180
207 ttaaccagct aatctagttt tctttcatct cttgctgaaa ttcttctcca gccaatgccg 240
208 gacttcttga aggttgtagg agaagggggc ctttctccc agataagcaa ttttctgtct 300
209 ctgcacaatg cacacacgtt caaaggctac cccgtaagct atgttggtgct tattgtccat 360
210 gcggtcagcc acaactcggc actggggcgg caaggagaaa cgctccagaa gctgggc 420
211 tgctgcacat cgatcttctt ggttctggtg cttc 454

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213 <210> SEQ ID NO: 4

214 <211> LENGTH: 471

215 <212> TYPE: DNA

216 <213> ORGANISM: Homo sapiens

218 <220> FEATURE:

219 <223> OTHER INFORMATION: MAP TO AC007363.3

221 <220> FEATURE:

222 <223> OTHER INFORMATION: EXPRESSED IN BONE MARROW, SIGNAL = 2.6

224 <220> FEATURE:

225 <223> OTHER INFORMATION: EXPRESSED IN HBL100, SIGNAL = 1.8

227 <220> FEATURE:

228 <223> OTHER INFORMATION: EXPRESSED IN ADULT LIVER, SIGNAL = 1.8

230 <220> FEATURE:

231 <223> OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 1.9

233 <220> FEATURE:

234 <223> OTHER INFORMATION: EXPRESSED IN BT474, SIGNAL = 1.9

236 <220> FEATURE:

237 <223> OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 2.3

239 <220> FEATURE:

240 <223> OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 2.5

242 <220> FEATURE:

243 <223> OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 2.5

245 <220> FEATURE:

246 <223> OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 2.3

248 <220> FEATURE:

249 <223> OTHER INFORMATION: EXPRESSED IN HEART, SIGNAL = 2.5

251 <400> SEQUENCE: 4

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252 gacaatacct tccttgctcc actggccccc caagccccag aaagcagcct cagcaccagg 60
253 ctgcttgcca agcccagctt acccttcaga tgggcagcca tggctgggat ccggacgtcg 120
254 tcgtaggacc tcccgctcgt gatgaggatc attaacttcc tcttggtggg cttggacttc 180
255 ttgaagagct gctccagggc gaagttgatg gcagcccccg tgctggtgcc accactccag 240
256 tagccacccc tcttgatggc gttgaggatg tcaggcttgc tgctgtactt gtcgaaccca 300
257 aactccagcc gctgttcgta ggtgtactgc acggccccga tgcgcgtgtc cgtgtcggaa 360
258 atctcaaaact ctttggtgag gttggtcaca aactggagga cgggtcggaa gttgcccgtc 420
259 cccacactgc tggagccgtc gatgacgaag ccaatgtcag ccgagttcaa g 471

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261 <210> SEQ ID NO: 5

262 <211> LENGTH: 451

263 <212> TYPE: DNA

264 <213> ORGANISM: Homo sapiens

266 <220> FEATURE:

267 <223> OTHER INFORMATION: MAP TO AC007263.3

269 <220> FEATURE:

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Input Set : D:\Sequence.txt

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270 <223> OTHER INFORMATION: EXPRESSED IN BONE MARROW, SIGNAL = 4.8
 272 <220> FEATURE:
 273 <223> OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 5
 275 <220> FEATURE:
 276 <223> OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 7.6
 278 <220> FEATURE:
 279 <223> OTHER INFORMATION: EXPRESSED IN BT474, SIGNAL = 4
 281 <220> FEATURE:
 282 <223> OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 6
 284 <220> FEATURE:
 285 <223> OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 5.1
 287 <220> FEATURE:
 288 <223> OTHER INFORMATION: EXPRESSED IN ADULT LIVER, SIGNAL = 4.7
 290 <220> FEATURE:
 291 <223> OTHER INFORMATION: EXPRESSED IN HEART, SIGNAL = 3.3
 293 <220> FEATURE:
 294 <223> OTHER INFORMATION: EXPRESSED IN HBL100, SIGNAL = 4.1
 296 <220> FEATURE:
 297 <223> OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 9.1
 299 <400> SEQUENCE: 5
 300 ttgaacacct actccatgcc agtcctctggg gacatgagct gaatcagatc gtcagtgtct 60
 301 tcagagagct cacagtctag ctccataaat aactaactta taataacctg tgtttcatgg 120
 302 aaaggagaca gcataagaca gataggatct gctctcagca tggagggagg caggaagaag 180
 303 acaggaggag cagtattttc aagacagcat aaaagtttgc aaagaaaaca agggagtga 240
 304 ggacattcca agcaggggca actgagtagc aatgacagag gtcaaaggcg ctctgggtgc 300
 305 tccaagggac catgagcaac ttggtattgt cagagcgaaa aaaactaaaa gacaaggggt 360
 306 ggcaggagaa gctggagcaa gtggagccaa ttgttttagtg ctaaagaacc tggaagtggc 420
 307 acaggtcaca gggagccagg agtcattttg a 451
 309 <210> SEQ ID NO: 6
 310 <211> LENGTH: 476
 311 <212> TYPE: DNA
 312 <213> ORGANISM: Homo sapiens
 314 <220> FEATURE:
 315 <223> OTHER INFORMATION: MAP TO AC007263.3
 317 <220> FEATURE:
 318 <223> OTHER INFORMATION: EXPRESSED IN HBL100, SIGNAL = 8.3
 320 <220> FEATURE:
 321 <223> OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 7
 323 <220> FEATURE:
 324 <223> OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 8.1
 326 <220> FEATURE:
 327 <223> OTHER INFORMATION: EXPRESSED IN ADULT LIVER, SIGNAL = 7.5
 329 <220> FEATURE:
 330 <223> OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 8.8
 332 <220> FEATURE:
 333 <223> OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 9.5
 335 <220> FEATURE:
 336 <223> OTHER INFORMATION: EXPRESSED IN HEART, SIGNAL = 3.4
 338 <220> FEATURE:

Use of n and/or Xaa has been detected in the Sequence Listing.
 Review the Sequence Listing to insure a corresponding
 explanation is presented in the <220> to <223> fields of
 each sequence using n or Xaa.

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/864,761

DATE: 07/30/2001

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Input Set : D:\Sequence.txt

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L:11 M:270 C: Current Application Number differs, Replaced Current Application No

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:5735 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:121

L:5799 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:122

L:5801 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:122

L:5838 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:123

L:5840 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:123

L:5892 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:124

L:5942 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:125

L:6001 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:126

L:6002 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:126

L:6530 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:137

L:6924 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:145

L:7231 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:151

L:7232 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:151

L:7233 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:151

L:10112 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:211

L:10116 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:211

L:10183 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:212

L:10184 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:212

L:10186 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:212

L:10187 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:212

L:10188 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:212

L:18363 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:386

L:18847 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:396

L:18902 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:397

L:18907 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:397

L:18980 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:398

L:18982 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:398

L:19169 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:402

L:24715 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:517

L:24802 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:518

L:24803 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:518

L:24804 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:518

L:24805 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:518

L:24869 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:519

L:24871 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:519

L:24872 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:519

L:25736 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:537

L:25800 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:538

L:26189 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:546

L:26242 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:547

L:26887 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:560

L:26891 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:560

L:26894 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:560

L:26953 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:561

L:26954 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:561

L:27009 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:562

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/864,761

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Input Set : D:\Sequence.txt

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L:27010 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:562
L:27065 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:563
L:27066 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:563
L:27549 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:573